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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,132	04/28/2006	Fuminari Nonomura	KOD183B.001APC	1297
20995 7590 12/30/2009 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER DICUS, TAMRA	
			ART UNIT 1794	PAPER NUMBER
			NOTIFICATION DATE 12/30/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/550,132	Applicant(s) NONOMURA ET AL.	
	Examiner TAMRA L. DICUS	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-10, 13 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-10, 13 and 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

All prior rejections are overcome by applicant's amendment to the claims and are withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-10, 13 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doelle et al. (WO 03/072875 -US PGPUB 2005/0121157 a1), as evidenced by Gary A. Smook (Handbook for Paper and Pulp Technologists) and Ono et al. (IPST Technical Paper Series Number 611, "Cationic Polymeric Microparticle Flocculant for Precipitated Calcium Carbonate"), in view of Hirabayashi et al. (US 6,458,413).

It is noted that when utilizing WO03/072875 in the above paragraph, the disclosures of the reference are based on US PGPUB 2005/0121157 which is an English language equivalent of the reference. Therefore, the column and

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line numbers cited with respect to WO 03/072875 are found in US PGPUB 2005/0121157.

Doelle teaches a papermaking newsprint wherein it is well known to have typically included filler and paper, 5 to 20% ash content, where precipitated calcium carbonate (PCC) is selected to improve the appearance of paper (falls in Applicant's recited ranges) and exact grain size range. See [0019, 0021, 0026-0031]. Doelle doesn't teach a dispersant and it is a PCC (claim 21).

The paper of Doelle is made from pressed newsprint paper, which is still paper nonetheless because it is of pressed paper fibers. Without such reliance, however, a preamble is generally not limiting when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention. Consequently, "preamble language merely extolling benefits or features of the claimed invention does not limit the claim scope without clear reliance on those benefits or features as patentably significant." In *Poly-America LP v. GSE Lining Tech. Inc.*, 383 F.3d 1303, 1310, 72 USPQ2d 1685, 1689 (Fed. Cir. 2004).

The method by which the calcium carbonate is produced (i.e. by a chemical method) is not given patentable weight because it is a process limitation in a product claim. Product-by-process claims are not limited to the manipulations of the recited steps, only the *structure* implied by the steps. Patentability of an article depends on the article itself and not the method used

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to produce it (see MPEP 2113). Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of the product claimed and NOT of the recited process steps which must be established. *In re Brown*, 459 F. 2d 531. Both Applicant's and prior art reference's product are the same.

Applicant's attention is directed to the following regarding all properties (i.e. zeta potential) and function: It is elementary that the mere recitation of newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art." *In re Swinehart et al.*, 169 USPQ 226 at 229. Since the references teach *all of Applicant's claimed compositional and positional limitations*, it is inherent that the reference article functions in the same manner claimed by Applicant. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. *In re Fritzgerald*, 205 USPQ 597, *In re Best*, 195 USPQ 430.

Further, Smook shows an ash content in papers that are produced by alkaline processes having an ash content from 18% to 25% (falling in Applicants range of less than 40%) and fillers serves to stabilize the pH range from 7 to 8. Fillers are used from 5% to exceeding 30% (falling in Applicant's

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range claims 6, 7, and 23). See page 225, 1st col., last paragraph through page 227. Smook does not teach the filler and zeta potential.

Ono, however, shows PCC filler, in Fig. 1, having a pH of 7-8, having a zeta potential above zero, less than 20 mV (falling in Applicant's range of 0 mV or above). Thus the filler, zeta potential and ash content recitations are met. Smook and Ono teach the filler amounts, which directly affect the zeta and pH values as in the recited claims.

Further both references show the parameters are result-effective variables, making it obvious as well to one having skill in the art to have modified the Doelle patent to optimize the filler content for optimizing solubility at lower pH systems as taught and cited above. It is submitted the claimed values of the respective material would have been obvious to the skilled artisan at the time the invention is made for the reasons taught in the references and noted above. It has long being held that such discovery, such as an optimum value of the respective result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215(CCPA 1980). See also MPEP § 2144.05 II (B).

Doelle doesn't teach a clear coat, or deinked pulp as claimed (claims 6, 13, and 22), while generally teaching dry paper.

Hirabayashi teaches dry paper sludge such as deinked pulp (in no limitation used with alkaline methods) used as paper pulp in web-offset

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printing for coated paper (12:15-35) wherein the coat is from known polyvinyl alcohol (PVA), the same ingredient Applicant admits yields the clear coat described on page 4, last paragraph of the instant specification, which heightens the inner bond strength and adds blister resistance to the surface of paper for web-offset printing (11:35-68). See also 3:35-68, 4:15-50, Examples 8-9 show at least 50% deinked pulp used (50 parts deinked pulp used) and PVA coating (polyvinyl chloride) re claims 6 and 22-24.

Thus, it would have been obvious to one having ordinary skill in the art to modify the paper of Doelle to include a clear coat and deinked pulp because Hirabayashi teaches the additions help to heighten the inner bond strength and adds blister resistance to the surface of paper for web-offset printing and used in alkaline methods and the coated paper aids in generating negligible fluting and excellent in high quality printing as cited above.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doelle et al. (WO 03/072875 -US PG PUB 2005/0121157 a1), in view of Hirabayashi et al. (US 6,458,413) and further in view of Maruyama et al. (US 5,527,852).

Doelle teaches the claimed invention above. Doelle doesn't teach a clear coat or deinked pulp (claims 13—14), while generally teaching dry paper.

Hirabayashi teaches dry paper sludge specifically including deinked pulp used as paper pulp in web-offset printing for coated paper (12:15-35) wherein

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the coat is comprised of known polyvinyl alcohol (PVA), which heightens the inner bond strength and adds blister resistance to the surface of paper for web-offset printing (11:35-68). See also 3:35-68, 4:15-50. Hirabayashi doesn't teach the PVA is clear.

Maruyama teaches PVA is a clear coating agent known to improve the surface characteristics of paper, such as smoothness, luster, and barrier properties. See 1:10-20, 2:50-68, Example 1.

Thus, it would have been obvious to one having ordinary skill in the art to modify the paper of Doelle to include a clear coat and deinked pulp because Hirabayashi teaches the additions help to heighten the inner bond strength and adds blister resistance to the surface of paper for web-offset printing as cited above and Maruyama teaches PVA is a clear coat known to improve surface characteristics of paper, such as smoothness, luster, and barrier properties as cited above.

Response to Arguments

Applicant's arguments filed have been fully considered and are persuasive, thus a new grounds of rejection is presented above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAMRA L. DICUS whose telephone number is (571)272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Ruthkosky can be reached on 571-272-1291. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Ruthkosky/
Supervisory Patent Examiner, Art Unit 1794

Tamra L. Dicus /TLD/
Examiner
Art Unit 1794